ever, forming a nidus for the ultimate plexuses of the sentient matter, the coloured substance would seem to fulfil some other use not yet ascertained, as wherever it exists it exhibits the same character with respect to colour, varying from yellow to green or brown. Dr. Macartney considers the yellow spot in the retina of the human eye, and in that of the monkey and lemur, as a ganglion, having discovered that it contains a more intricate reticulation of the nervous filaments than exists in the other parts of the retina.

The coloured substances of the nervous system in no degree derive their peculiar tints from the blood that circulates in them, since the colours are palest in the fœtus, and grow darker as the nervous system approaches its perfect organization.

It is a generally received opinion that the ventricles of the brain are cavities or hollow spaces containing some liquid. This error has arisen from the common modes of dissecting the brain, which necessarily separate the surfaces of the ventricles from each other. If, however, the dissection be performed without disturbing the natural position of the parts, not the slightest appearance of cavity or interspace presents itself. The sole use of the ventricles, therefore, seems to be, merely to gain an extent of surface necessary to the development of the peculiar organization of the brain. Apparently there is less superficies in proportion to the magnitude of the mass of the brain in man than in that of animals; but if we calculate the depth of the surfaces between the convolutions of the cerebrum and on the branches of the arbor vitæ in the cerebellum, together with the internal surfaces, we shall find that the superficies of the human brain is greater in relation to its bulk than that of any other animal. In addition to the surfaces already known, Dr. Macartney has ascertained the existence of ventricles, (so called,) in the bulb of the olfactory nerves, and in the optic thalami of the human adult brain. In the thalami the distinction of surface is obscure, but in the olfactory tubercles it is sufficiently plain.

The author concludes with stating his belief that every assemblage of the nervous filaments in the form of plexus is destined to fulfil an especial purpose, and with the anticipation that at no distant period we shall be able to understand many of the phenomena of sensation which have been hitherto veiled in the utmost obscurity.—*Report of the Third Meeting of the British Association for the Advancement of Science.*

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3. *Connexion Between the Uterus and the Placenta Examined.* By Daniel Noble, Esq. of Manchester.—Mrs. Shawe, aged thirty-two, of delicate habit, was in momentary anticipation of her confinement, when, on the 19th instant, she was attacked by a sudden and severe invasion of phrenitis, which terminated fatally on the evening of the following day. On the 21st, the body was examined by Mr. Anderson, surgeon, of this town, and myself. Having exposed the cavity of the uterus, by a longitudinal section of its anterior portion, we separated the fœtus, and then directed our especial attention to the junction of the uterus and placenta. For the purpose of more particular examination, we removed the upper portion of the uterus from the abdomen; and having washed its inner surface, we proceeded to effect the separation of the placenta. On taking hold of the sheet left by the destruction of the ovum, and tracing it to the placental margin, the splitting of the membranes, (almost united at the full period,) was beautifully observed; the amnion and chorion passing over the fœtal aspect, and forming the sheath of the umbilical vessels, and the decidua evidently separating from them at the margin. On commencing with the separation of the placenta, the decidua, at the margin and for a short distance, came along with it; and a considerable number of minute vessels were seen running from the lining membrane of the uterus to the decidua, and the decidedly greater calibre of certain vessels at the margin was distinctly observed. At a short distance from the placental border, the decidua ceased to separate from the uterus, and remained in connexion with its lining membrane; as the substance of the placenta separated from the decidua, the same abundance of

minute vessels were observed as between the uterus and decidua; but whether these were prolongations of the vessels proceeding from the lining membrane, or minute ramifications of the umbilical vessels, did not appear quite clear; for the rupture of the decidua by these vessels, during the separation, threw some little confusion upon the examination;—however the imperforate character of the decidua, which in some places we could observe, would, I think, lead to the inference that the minute vessels observed in separating the placenta from the decidua, were *not* prolongations of those noted between the uterus and this membrane, but extreme ramifications of the umbilical vessels adhering to the decidua. In two or three situations, a space of somewhat larger dimensions than the *superficies* of a half-crown piece was left, with the decidua attached to the lining membrane of the uterus, without the slightest laceration; beneath the decidua in this situation, a blow-pipe was introduced, and air was insufflated between it and the common lining membrane; the decidua was raised, and, to every appearance, there was not the slightest perforation. A director was then introduced, and the deciduous membrane divided; and, underneath, were observed two or three of those celebrated valvular orifices in the lining membrane of the uterus, most incontrovertibly closed by the apposition of the deciduous membrane. In another situation, after a portion of the decidua had been ascertained to be imperforate by the insufflation of air, it was separated a little more roughly; and upon attempting to pass a probe into the uterine sinuses, through one of their now well-known openings, a portion of decidua was found to have adhered to the margin of the orifice, and to close the aperture. On pushing the probe, however, through this portion of membrane, it readily entered one of the great uterine veins.—*Medical Gazette, September 6th,* 1834.

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4. *Abstract of Observations on the Motions and Sounds of the Heart.* By Hugh Carlile, A. B. Demonstrater in the School of Anatomy in the University of Dublin.—The circumstances in the history of the heart's action which have been most the subject of controversy within late years may be enumerated as follow:—1st, the expansion and contraction of the auricles and ventricles, commonly called their "systole" and "diastole;" 2d, the beat of the heart against the side of the chest; 3d, the arterial pulse; and 4th, the sounds perceptible during the heart's motion. With a view to the explanation of these phenomena, the author has made some experiments on living animals, the results of which he was desirous of communicating to the Association.

In experiments of this kind it is desirable, as well for ensuring the means of accurate observation as for the sake of humanity, to diminish as much as possible the suffering of the animal. This can be accomplished by the use of the artificial respiratory apparatus, the animal having been suddenly deprived of sensation without shedding its blood. But the author has found that the application of this apparatus causes the heart to continue and terminate its motions in an unusual manner, and is therefore liable on some points to mislead the observer. In those cases in which the employment of artificial respiration is not expedient, there is much advantage in using very young animals for experiment. In this stage of life, as well as in animals of the inferior classes, the different organs appear to have a comparatively independent existence; and as their functions are in many instances performed with little disturbance under serious injury to the individual, they also retain their vitality long after their separation from the rest of the system. From the same causes very young animals appear to suffer less pain during experiment than those of mature age.

After discussing the methods of experimenting, the author proceeds to describe the opinions which have been held by other persons on the subjects